

Claims

1. A vaccine for the protection of poultry against disease caused by an avian pathogen comprising an attenuated infectious laryngotracheitis virus (ILT_{TV}) mutant and a pharmaceutically acceptable carrier or diluent, characterized in that the ILT_{TV} mutant is not able to express a native UL0 protein in an infected host cell as a result of a mutation in the UL0 gene.
2. A vaccine according to claim 1, characterized in that the mutation in the UL0 gene is a deletion.
3. A vaccine according to claim 1, characterized in that the mutation in the UL0 gene is an insertion of a heterologous nucleic acid sequence.
4. A vaccine according to claim 2, characterized in that the mutant comprises a heterologous nucleic acid sequence in place of the deletion.
5. A vaccine according to claims 3 or 4, characterized in that the heterologous nucleic acid sequence is under the control of an expression control sequence.
6. A vaccine according to claim 5, characterized in that the heterologous nucleic acid sequence encodes an antigen of an avian pathogen.
7. A vaccine according to claim 6, characterized in that the avian pathogen is avian influenza virus, Marek's disease virus, Newcastle disease virus, infectious bronchitis virus, turkey rhinotracheitis virus, E. coli, Ornithobacterium rhinotracheale or Mycoplasma.
8. A vaccine according to claim 5, characterized in that the heterologous nucleic acid sequence encodes an immunomodulator.
9. A cell culture infected with an ILT_{TV} mutant as defined in claims 1-8.

- preparation of a vaccine
by an avian pathogen, o
ILTV mutant as define
or diluent.

add a

Reaction	Time	Yield	mp	lit	Ref
1	10 min	100%	100-101°C	100-101°C	1
2	10 min	100%	100-101°C	100-101°C	1
3	10 min	100%	100-101°C	100-101°C	1
4	10 min	100%	100-101°C	100-101°C	1
5	10 min	100%	100-101°C	100-101°C	1
6	10 min	100%	100-101°C	100-101°C	1
7	10 min	100%	100-101°C	100-101°C	1
8	10 min	100%	100-101°C	100-101°C	1
9	10 min	100%	100-101°C	100-101°C	1
10	10 min	100%	100-101°C	100-101°C	1
11	10 min	100%	100-101°C	100-101°C	1
12	10 min	100%	100-101°C	100-101°C	1
13	10 min	100%	100-101°C	100-101°C	1
14	10 min	100%	100-101°C	100-101°C	1
15	10 min	100%	100-101°C	100-101°C	1
16	10 min	100%	100-101°C	100-101°C	1
17	10 min	100%	100-101°C	100-101°C	1
18	10 min	100%	100-101°C	100-101°C	1
19	10 min	100%	100-101°C	100-101°C	1
20	10 min	100%	100-101°C	100-101°C	1
21	10 min	100%	100-101°C	100-101°C	1
22	10 min	100%	100-101°C	100-101°C	1
23	10 min	100%	100-101°C	100-101°C	1
24	10 min	100%	100-101°C	100-101°C	1
25	10 min	100%	100-101°C	100-101°C	1
26	10 min	100%	100-101°C	100-101°C	1
27	10 min	100%	100-101°C	100-101°C	1
28	10 min	100%	100-101°C	100-101°C	1
29	10 min	100%	100-101°C	100-101°C	1
30	10 min	100%	100-101°C	100-101°C	1
31	10 min	100%	100-101°C	100-101°C	1
32	10 min	100%	100-101°C	100-101°C	1
33	10 min	100%	100-101°C	100-101°C	1
34	10 min	100%	100-101°C	100-101°C	1
35	10 min	100%	100-101°C	100-101°C	1
36	10 min	100%	100-101°C	100-101°C	1
37	10 min	100%	100-101°C	100-101°C	1
38	10 min	100%	100-101°C	100-101°C	1
39	10 min	100%	100-101°C	100-101°C	1
40	10 min	100%	100-101°C	100-101°C	1
41	10 min	100%	100-101°C	100-101°C	1
42	10 min	100%	100-101°C	100-101°C	1
43	10 min	100%	100-101°C	100-101°C	1
44	10 min	100%	100-101°C	100-101°C	1
45	10 min	100%	100-101°C	100-101°C	1
46	10 min	100%	100-101°C	100-101°C	1
47	10 min	100%	100-101°C	100-101°C	1
48	10 min	100%	100-101°C	100-101°C	1
49	10 min	100%	100-101°C	100-101°C	1
50	10 min	100%	100-101°C	100-101°C	1
51	10 min	100%	100-101°C	100-101°C	1
52	10 min	100%	100-101°C	100-101°C	1
53	10 min	100%	100-101°C	100-101°C	1
54	10 min	100%	100-101°C	100-101°C	1
55	10 min	100%	100-101°C	100-101°C	1
56	10 min	100%	100-101°C	100-101°C	1
57	10 min	100%	100-101°C	100-101°C	1
58	10 min	100%	100-101°C	100-101°C	1
59	10 min	100%	100-101°C	100-101°C	1
60	10 min	100%			